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ABSTRACT

A survey of 299 businesses representing a stratified random sample of service, commercial, and industrial employers in southwestern Minnesota was conducted to determine the attitude of business executives toward Worthington Community College (WCC) and to identify their postsecondary program needs. The three-part survey instrument asked respondents to: (1) indicate their level of agreement with 20 statements concerning the quality of WCC's academic reputation, community contribution, and course offerings; (2) select from a list of 60 vocational course offerings those instructional areas that would be beneficial to themselves and to their employees; and (3) indicate preferences for location of classes, scheduling, teacher background, and class format. The 231 survey responses were analyzed to determine variations among the cities represented by the sample, among the three types of businesses surveyed, and among the businesses when grouped by size. In addition, findings were analyzed to determine the relationship between course preferences and attitudes toward WCC. The study report reviews relevant literature, describes methodology and procedures, details findings, and presents summary recommendations. A bibliography, pilot-tested and final survey instruments, and a pilot study report are appended. (JP)

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An Assessment of the Attitudes and Program Needs of
Commercial, Industrial, and Service Agencies from the
Service Area of Worthington Community College

CHARLES MOORE

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A MAJOR APPLIED RESEARCH PROJECT
PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF EDUCATION

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Abstract of a Major Applied Research Project Presented to
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for the Degree of Doctor of Education

AN ASSESSMENT OF THE ATTITUDES AND PROGRAM NEEDS OF
COMMERCIAL, INDUSTRIAL, AND SERVICE AGENCIES FROM THE
SERVICE AREA OF WORTHINGTON COMMUNITY COLLEGE

by

Charles Moore

August, 1980

The purpose of this study was to determine the attitudes of area service, commercial, and industrial employers toward Worthington Community College, to identify program needs for themselves and their employees, to show any relationship between these attitudes and program needs, and to obtain suggestions about the logistics for program offerings. Data from 231 respondents selected through a simple stratified random sample were used to make the above assessments.

While there were some limitations noted in the attitude measure, a positive attitude toward Worthington Community College was obtained. Those employers showing the most positive attitudes were from cities where off-campus courses were taught, where the college belonged to the chamber of commerce, and which are closest to the college.

Employers indicated that the offerings they preferred for

themselves were essentially the same as those preferred for their employees. It was also found that employers between cities and between types of agencies preferred essentially the same offerings.

A lack of any correlation between the employers' attitude and their desired number of offerings was found.

The respondents generally agreed with the college's past management of courses intended for business people in the service area. They suggested that these courses be held on-campus during the evening hours, taught by a Worthington Community College instructor, and be given for both credit and non-credit. Respondents did suggest that classes be held for four to six weeks instead of the college's past practice of ten to twelve weeks, and they also gave some indication that Saturday classes should be considered.

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TABLE OF CONTENTS

	Page
LIST OF TABLES	iii
Chapter	
1. INTRODUCTION	1
PURPOSE STATEMENT	5
SIGNIFICANCE OF THE STUDY	5
RESEARCH QUESTIONS.	7
DEFINITIONS OF TERMS.	8
LIMITATIONS	9
2. REVIEW OF LITERATURE	10
STUDENT COMPOSITION AND COMMUNITY COLLEGE PHILOSOPHY.	10
LIMITATIONS FOR RESEARCH IN THE RURAL COMMUNITY COLLEGE	12
ATTITUDE TOWARD COMMUNITY COLLEGES BY COMMUNITY.	13
PROGRAMMING FOR THE COMMUNITY	16
LOGISTICS	20
DISCUSSION OF LITERATURE.	23
3. PROCEDURES AND METHODS	26
SAMPLE.	26
OPERATIONAL DEFINITIONS OF THE VARIABLES.	27
INSTRUMENT.	28
SURVEY.	31

TABLE OF CONTENTS (continued)

	Page
TREATMENT OF DATA	32
SUMMARY OF PROCEDURES AND METHODS	34
4. RESULTS.	36
FREQUENCY OF RESPONSES FROM THE SURVEY. . .	37
SUMMARY OF RESULTS.	54
5. IMPLICATIONS AND RECOMMENDATIONS	62
ASSESSMENT OF RESPONSE RATES.	62
ATTITUDE EVALUATION	65
PREFERRED OFFERINGS	68
RELATIONSHIP BETWEEN ATTITUDE AND OFFERINGS	71
LOGISTICS	73
SIGNIFICANCE FOR RESEARCH ESPECIALLY FOR RURAL COMMUNITY COLLEGES.	76
BIBLIOGRAPHY.	80
APPENDICES	
A. FINAL INSTRUMENT	84
B. INSTRUMENT USED IN PILOT STUDY	90
C. RESULTS AND DISCUSSION OF PILOT STUDY.	98
D. LETTER MAILED TO RESPONDENTS IN PILOT STUDY. .	105
E. LETTER MAILED TO RESPONDENTS IN FINAL STUDY. .	107
F. LETTER MAILED TO THOSE NOT CONTACTED	109
G. LETTER MAILED TO RESPONDENTS CONTACTED BUT NOT RESPONDING	111

LIST OF TABLES

Table	Page
1. Distribution of Responses for the Three Sub-samples	38
2. Distribution of Responses by City	39
3. Distribution of Responses by Size of Business	40
4. Mean Scores of Respondent's Attitude by Type by City.	41
5. Analysis of Variance by Type by City.	42
6. Mean Scores of Respondent's Attitude by Size by City	44
7. Analysis of Variance by Size by City	45
8. Ranks of Distance, Mean Scores of Attitude, and Percent of Undecided Responses by City	46
9. Ranked Offerings by Type by Self.	48
10. Ranked Offerings by Type by Employee.	49
11. Ranked Offerings by City by Self.	50
12. Ranked Offerings by City by Employee.	52
13. Rankings of Mean Score of Attitude and Mean "Yes" Responses on Offerings for Self and Employee	53
14. Frequency Distribution of Employer's Preferred Location for Classes.	55
15. Frequency Distribution of Employer's Preferred Instructor for Classes.	56
16. Frequency Distribution of Employer's Preference for Credit or Non-Credit Classes	57

LIST OF TABLES (continued)

Table	Page
17. Frequency Distribution of Preferred Length of Classes	58
18. Frequency Distribution of Preferred Times for Classes	59
19. Frequency Distribution and Rank Order of Offerings for Self (Employer) and for Employees (Pilot Study)	100

Chapter 1

INTRODUCTION

The catchwords of criticism leveled at education during the last few years seem to have been "not relevant"; the complaint heard from administrators of higher education has been a dropping enrollment. Both criticism and complaint were addressed by Ferguson and others (1975) in their statement about the need to conduct research to justify increasing costs of programs at colleges and universities: "Planners and administrators of educational and training programs run the risk of providing inappropriate or unusable services and programs, if those services and programs are planned and designed without conscious attention to the needs and wants expressed by people in the community" (pp. 1-2). Less risk is taken if surveys are conducted to assess needs and attitudes before administrators establish programs (Howard, 1979).

This study was undertaken to address problems related to dwindling enrollment, changing student composition and needs, and related attitudes held toward Worthington Community College by three segments of its service population in order to form a basis for relevant programming that would be meaning-

ful for student recruitment.

Worthington Community College, originally Worthington Junior College, opened by the local school district in 1936, began with a curriculum primarily for transfer students working for a baccalaureate degree. Enrollment grew slowly until the 1950's and 1960's and peaked with 714 full-year equivalent (FYE) students in 1970 (The Communicator, 1979). Since then, it has decreased to a low of 365 FYE in 1978-1979. The decrease in FYE in 1974 to 1978 was 28.6 percent; the decrease in FYE in 1977-1978 from the previous year was 22.2 percent (Minnesota Higher Education Coordinating Board, 1979). The enrollment decline since 1970 has caused faculty lay-offs, financial cuts, and a serious institutional morale problem.

An enrollment decline across the country has shocked higher education because it came so quickly after the marked enrollment increases during the 1960's (Leister, 1975). One reason for this enrollment decline was that the number of students, particularly the recent high school graduate, is no longer available. The National Institute on Education estimated a 25 percent decline in secondary school enrollment through 1990 (Neill, 1979).

At Worthington Community College, the trend of decreasing enrollment recently has been reversed. The full-time equivalent (FTE) enrollment for fall quarter, 1979, was 492 and for winter quarter 440. Predictions made for the current

academic year by the state were 390 FYE and steady decreases have been projected into the 1990's by the Minnesota Higher Education Coordinating Board. This has not been the case, however. The 1979-1980 FYE at Worthington Community College was reported at 451 (Student Services, Worthington Community College). Several new programs introduced during the 1979-1980 academic year at the college seemed to account for this inconsistency. Developing new programs then appears to be a key to solving enrollment problems. This direction in programming was consistent with the latest accreditation report for Worthington Community College (North Central Association of Colleges and Secondary School Report, 1978).

In its 1972 report to Worthington Community College, the North Central examining team noted as its first area of concern that the college's career programs were out of balance with the academic transfer programs with greater emphasis on the latter. The report noted additional concerns including the following: "The college should address itself to the development of a master plan for educational offerings. Included in this plan should be the extent of vocational, pre-baccalaureate, continuing education, and community service activities" (p. 11). The master plan that North Central suggested required more information on those programs in which the college was found weakest: vocational, continuing education, and community service activities.

Since 1972, the head count and number of part-time stu-

dents at Worthington Community College appear to indicate a greater appeal to the non-traditional student. In 1974 the unduplicated head count was 476, increasing to 762 in 1976 and falling to 530 in 1978. The full-time students constituted 65.0 percent of the head count in 1974 falling to 54.5 percent in 1978 (Minnesota Higher Education Coordinating Board, 1979). Many of the offerings instituted in the last year have been designed for this part-time student body.

Declining enrollments, such as those the college has experienced, obviously should not be the only reason for extending offerings to the commercial, industrial, and service agencies in its service area. More students do solve many of the problems created by declining enrollments, particularly when funding is based solely on FYE as in Minnesota, but the primary reason should be the services such a college can provide to its community. According to the mission statement in the Worthington Community College Catalog, 1978-1980, the college exists to serve students, defined as anyone who utilized "the resources of the college" (p. 2). The objectives in this mission statement include services for those seeking skills leading to job entry, for those wanting enrichment opportunities, and for those desiring improvement of skills in avocational interests.

Many writers discuss the need for community colleges to be comprehensive first. In fact Levine and Connolly (1971) said that historically the community college "has been one

of responsiveness to its many communities" (p. 10). Howard (1979) defined the community college as one that draws its mission from the community. Thompson (1979) emphatically stated that post-secondary institutions must not think only in terms of academic prestige but must attend to public concerns.

The trends noted above, both national and local, and the philosophy of the community college suggest that a concerted effort be made to identify the particular community attitudes and needs and develop programs accordingly. The key to successful college programming lies in identifying the particular community attitudes toward a given institution and the program needs of the community members.

PURPOSE STATEMENT

The purpose of this study was twofold. The immediate and practical aim was to determine the attitudes of area service, commercial, and industrial agencies toward Worthington Community College and to identify program needs as perceived by these groups. A second objective was to identify any existing relationships between attitudes and program needs that would offer direction for future programming decisions.

SIGNIFICANCE OF THE STUDY

The underlying rationale for this study was developed from the needs of Worthington Community College.

There is a need to identify the attitude of a large segment of the population served by Worthington Community College. This assessment was the first extensive study completed by the college. Those closely associated with the college have frequently speculated about the college's image by those in its target area, but these were too frequently based on rumor and hearsay. With knowledge of the attitude of various community groups, the college officials will know what problems of image will need to be addressed.

This study was also the first done by the college of the perceived program needs of the business community. Officials from the State Community College's office and from North Central have firmly suggested that the college expand its continuing education program. In this study perceived program needs were identified, and information essential in implementing these programs, such as preferred format, location, time, and instructor was provided.

This study also provided insight into the role of the attitude of those within the business community on their program needs. Correlations were made between the respondents' attitude and their indicated program needs. Some writers discussed their studies on determining attitudes of community groups toward education; others presented program need assessments. None made any observations about the impact of attitudes of community groups on their decisions about what they wanted the college to do for them.

An understanding of both attitude and program needs is therefore significant, but in a period of declining enrollment, each has additional importance. Establishing programs suggested by the respondents and addressing attitudinal problems, Worthington Community College can make long-range plans to face logically the problems created by the declining population in rural southwest Minnesota.

It is further hoped that this study will provide some contribution to the rural community colleges in general. Often these colleges lack resources to conduct appropriate studies before they establish programs. Models for research such as this study should be made available to these rural community colleges so that they incur less expense when conducting similar studies.

RESEARCH QUESTIONS

The specific research questions addressed in this study were as follows:

1. Do attitudes (positive and negative) of the business executives in six counties of southwestern Minnesota towards Worthington Community College vary between cities, types of business, and size of business?
2. Are there differences between service, commercial, and industrial agencies between cities with respect to the college's offerings?
3. What is the relationship between desired offerings and attitudes?

4. What are the best decisions the college can make with respect to logistics about program offerings, i.e., credit or non-credit, location, time, instructor, and format?

DEFINITIONS OF TERMS

Business agencies referred to in this study were identified by their primary business activity. Business was an encompassing term to include service (all businesses and agencies, both private and public, providing help to customers and/or clients), commercial (businesses involved in trade, both retail and wholesale), and industry (concerns focusing on manufacturing, production, and preparation or processing).

Attitude was defined as a positive or negative sentiment towards the college. Attitude and image, used here as synonymous concepts, would be positive, negative, or undecided, the latter suggesting a lack of knowledge about or awareness of Worthington Community College. One dimension of attitude, academic quality of Worthington Community College, was defined as faculty competency and courses or program substance and/or standards. Another dimension, community contribution, was defined as nonacademic program offerings and participation within the community. The last dimension, class offerings, included the available classes and programs known by the respondents.

Offerings was defined as those classes or programs either

currently available at the college or those that the college believed could become a part of the curriculum.

The businesses were grouped according to four sizes: 1-10, 11-50, 51-100, and over 100.

Program logistics included information related to location of classes, instructor, format, and time.

LIMITATIONS

1. The population for the survey, the memberships of the area chambers of commerce, included only the service, commercial, and industrial agencies in the six-county area.

2. The study dealt with a single institution and only three samples within the community. Caution is needed when the results of this study are used to generalize about other rural community colleges.

3. The questionnaire was designed only for this particular study, but suggestions for questions and format for the instrument were found in other questionnaires which have been tested for validity and reliability.

Chapter 2-

REVIEW OF LITERATURE

A search of the literature yielded five topics relevant to this study: student composition and community college philosophy, limitations for research in the rural community college, attitude toward community colleges by community, programming for the community, and logistics. In this chapter are summaries of these studies.

STUDENT COMPOSITION AND COMMUNITY COLLEGE PHILOSOPHY

Fricano (1975) addressed the difficulties in attracting the contemporary non-traditional student:

For many years the majority of the teaching has taken place within the formal walls of the educational institution. However this philosophy has excluded many individuals because they were unfamiliar and uneasy in a cultural framework which was alien to them (p. 49).

He continued by saying that community colleges, particularly those not tied to tradition, must provide services to the community, its industries, and its citizens. The older and more traditional colleges should be willing to shed their purely academic orientation if they are to survive the pre-

dicted periods of decreased enrollments.

Howard (1979) identified two courses of action available to colleges with declining enrollments:

One reactive response is to institute a plan of retrenchment, including such measures as organizing reduction-in-force committees, broad cutbacks in all program budgets, withdrawing outreach endeavors, and limiting staff development activities. Program and staff cuts match the decline in enrollment and inflationary costs. Countering this short-term approach is the proactive response: to identify new student populations and to create new modes of cooperation with community agencies. This view states that colleges need to extend services to the expanding pool of students such as adults, eighteen years of age and older, college dropouts, non-degree-oriented and part-time students, the handicapped, women over twenty-five years of age, professionals seeking to develop second careers, and public service employers and businessmen who need to be updated on new technological changes and management techniques (pp. 69-70).

Lewis and Blake (1978) claimed that the problem of providing the extended services mentioned by Howard in rural community colleges is more acute than it is in urban community colleges because the adult part-time student must typically conform to existing structures. The potential students must wait for the course they want to be offered at a convenient time and place. Abbot (1977) said that community colleges should be assertive and not force students to wait. Too often, he continued, community groups and community colleges wait for each other to make the first move before needed programs are established.

LIMITATIONS FOR RESEARCH IN THE RURAL COMMUNITY COLLEGE

There is evidence to suggest that the rural community college is at a disadvantage in making the first move. The primary cause for this disadvantage is the lack of resources with respect to both finances and personnel (McCarter and Barnes, 1978). Bottenfield (1978) noted that problems of costs are more acute at the small, rural community colleges because certain costs unrelated to program, such as facilities and maintenance, are proportionally higher; thus, money is channelled from program development. Vineyard (1978), in a task force report on the rural community colleges, discussed extensively some of the problems in providing services to community groups, especially "the lack of time and expertise to research local problems" (p. 34). He continued with the following observation:

Smaller community colleges often lack the services of an institutional-research specialist and hence may not have ongoing institutional research programs of an advanced level of sophistication. Thus, they are hampered in producing the self-study document from existing data and in the accumulation of the evaluational studies which are often stressed in the current rationale of regional accrediting bodies. This lack of a well-developed, continuing program of research is also a handicap in long-range planning (p. 39).

An additional problem is the lack of attention given to the rural community college by the academic community. Vineyard (1978) also noted that researching "the professional literature reveals few solutions" (p. 35) to this dilemma for the rural community college. If the problems have been researched, the journals have failed to publish the research

and are silent "almost. . . as if this vast sector of higher education did not exist" (p. 35). Margolis (1978) said that the rural community college is only beginning to raise its voice about being ignored in the academic literature. He commented that even though rural colleges comprise almost half of the AACJC membership, "the education community has funneled most of its attention, funding, and research into urban and suburban areas" (p. 62). There is a problem of "'sizism,' an unspoken bias against small institutions with small enrollments" (p. 62). Like Margolis, Dubay (1977) also mentioned that the rural community college is beginning to make its voice heard. He cited the work done by AACJC, but he quickly added that a complete study must still be done.

ATTITUDE TOWARD COMMUNITY COLLEGES BY COMMUNITY

The amount and type of programming done for area commercial, industrial, and service agencies may be determined by the attitude these concerns have towards the community college. Hatley and Croskey (1978) believed that evaluation of the community's attitude toward education will provide information valuable for planning for more, effective interaction between the institution and the community. While Hatley and Croskey were addressing problems specific to public education in general, their comments seemed equally relevant to community colleges. The community's opinions about

education, "ranging from hypercritical to laudatory," (p. 59) seem cyclical, so constant assessment and reshaping of citizens' attitudes are imperative. Leister (1975) agreed that the college will have a variety of images and that the college could better function with knowledge of those images.

Some writers suggest that the attitude of some community groups, such as organized labor, towards higher education is negative. Levine and Connolly (1971) stated that the historical relationship between labor and higher education has been unfruitful. Unions believe that education has turned a "blind eye" to labor and that class attitudes and values from both sides have created "suspicion if not discrete hostility" (p. 10). Because of this, workers and their children tend to avoid many of the opportunities higher education offers.

Abbot (1977) stopped short of saying that community college and labor do not cooperate. In his survey of 1,014 community colleges with 523 responses, he concluded that many cooperative efforts do exist, and many more are possible, particularly if labor would ask for them. Only half of the colleges are conducting programs for labor, yet 81.1 percent of the colleges said they were willing to develop these programs. Again, the communities and the colleges have been waiting for each other.

Suspicion of labor towards community colleges may result because of an aloof attitude of academicians who separate themselves from the general community (Fram, 1973). Howard

(1979) said that aloofness is signalled when community college instructors cloister themselves from the community; these instructors must focus on interaction and become actively involved with the groups they serve. Thompson (1979) emphatically criticized this aloofness of colleges which pride themselves about their academic prestige. He said the following about quality among college faculties:

They can no longer afford to define institutional quality solely in terms of academic prestige. They can no longer afford to ignore public concerns about what is taught, how much is learned, and who is enrolled. Instead, resource allocation must take account of its effect on institutional revenue, and quality must be re-defined in terms of the benefits and costs as perceived by consumers of educational services (p. 83).

Leister (1975) maintained that community colleges, as opposed to other institutions of higher education, are not guilty of this aloofness; consequently, they have catered to the community and have become a viable choice for more students desiring post-secondary education. Leister also believed that cultural attitudes about community colleges have changed recently, thus eliminating in part the idea that community colleges are second-rate institutions. Because of this change in attitude toward community colleges, the recent crisis in enrollment decline has seriously affected several institutions of higher learning but has left other institutions, the community colleges, "relatively unaffected" (p. 382). More recent writers do not share Leister's optimism about community colleges being unaffected by enrollment

declines, but these writers usually state that enrollment declines result because of population declines rather than negative attitudes.

Leister (1975) noted that change in attitude of the community toward the college is slow:

Considerable inertia exists in the image of institutions. They are built up slowly over time and are likely to change very slowly as well. Rapid changes in position are impossible, no matter how capably new features are communicated (p. 396).

Fram (1973) agreed that images are difficult to change.

Kotler and Dubois (1972) believed that any significant change in the community's image toward the college may take five to ten years.

PROGRAMMING FOR THE COMMUNITY

Leister (1975) suggested that the college must take advantage of its image in the community. If the people believe that the college provides quality programs, then it can engage in "high-priced offerings" because studies indicate a relationship between price and quality. Likewise, if the community believes that a college's strength lies in continuing education, then the college must take advantage of its image by offering appropriate continuing education programs. He summarized this discussion by concluding that the institution must combine "attitude research data on one hand and potential education products (programs) on the other hand" (p. 396).

More often, however, writers and researchers address the surveying of offerings rather than attitude or the impact of attitudes on offerings. Community college educators and those involved in surveying community needs most often cite two reasons for establishing programs for the commercial, industrial, and professional communities: (1) technological advancements and (2) self-enrichment for employees.

Fricano (1975) commented on the technological advancement:

As our society advances technologically, the need for more effective performance on the job becomes more critical, not only to achieve increased levels of efficiency but to increase wanted productivity.

To achieve the above needs, training and education of all employees become increasingly important. Organizations without a directed effort are merely asking their personnel to achieve job knowledge and skill in their own individual ways on a haphazard and unorganized basis (p. 49).

In other words, the literature indicated that specific skills related to the employee's particular job must be improved through a coordinated training program. A recent telephone survey described by Wenig (1978) found that industrial executives believed that traditional educational institutions are most interested in general knowledge development. One of the conclusions of this survey was that programs designed for particular skill improvement should be the emphasis of the community college in industrial program development. Shelly et al (Fricano, 1975) suggested that such emphasis would be fruitful since it is predicted that "the retraining

process for an employee will occur three or four times during his/her working lifetime" (p. 51).

Empirical studies have also indicated a demand for occupational training programs. The National Advisory Council on Extension and Continuing Education estimated that 15.7 million adults participated as part-time students in adult education in 1976. Almost half (46.5 percent of the respondents) were in occupational training programs. The authors projected even more participation with easier accessibility (Lewis and Blake, 1978). Suggestions for improved accessibility might take the form of apprentice programs (Abbot, 1977), cooperative education programs, and internships (Funk, 1976). Fram and Clarcq (1978) stated that whatever the training program, it must be applicable to a current need of the participant.

Because the community college is comprehensive, as contrasted with the job training offered by vocational schools, it could be more important to business and industry in meeting both skill and general education needs. This is especially true with a broadened concept of job relatedness, including any educational program directly or indirectly affecting job performance (Levine and Connally, 1971).

Fricano (1975) suggested that in addition to programs for commercial and industrial enterprises, college programs should be developed for the whole community including churches, hospitals, community organizations, and other local agencies:

No longer can colleges continue to offer courses just in history, humanities, mathematics, etc. To truly meet goals and objectives of the entire community these courses, along with vocational technical courses in welding, machine shop, numerical control, automotive, and others, must be included in the curriculum. And, in addition to baccalaureate and vocational-technical education, a complete program of adult and continuing education courses in the areas of basic English for foreign-speaking adults, GED . . . and CLEP . . . must be offered. Let us not be too narrow in our educational perspective . . . (p. 51).

The number of programs which can be made available to commercial, industrial, and service groups, as the literature indicated, seems limitless.

Community colleges can also offer self-enrichment programs for employees. Not only would these be of value to the individual students but to their employers as well. If the employees develop a sense of personal worth, they may create fewer disciplinary problems, have lower absenteeism, improve their attitude, and have greater concern for their finished product (Fricano, 1975).

Witherell (1974) mentioned that the human resource is consistently ignored even though the other resources--material, financial, and management--are dependent on the human resource. Some companies have realized this, and where college programs are not available, they have incorporated self-enrichment courses into their own training programs. For example, Boeing Aircraft's training programs provide for the developing of human resources on a long-range basis so they can meet "future challenges" (p. 45). Bachman (1979), Busi-

ness and Industry Liaison Coordinator of the Wisconsin Board of Vocational, Technical, and Adult Education, equated the investment in human capital with the investment in equipment. A curriculum addressed to self-enrichment, in addition to skill upgrading, might significantly affect the high percentage of employee failures attributed to problems of attitude. Sorensen (1979), in an address to vocational educators, maintained that 97 percent of those who lose jobs do so because of poor human relation skills and that only one-half percent lose jobs because of poor job skills.

LOGISTICS

Writers and researchers addressed a variety of issues related to programs for those in the community. Based on surveys and first-hand experiences, they made recommendations about credit or non-credit offerings, locations, time, instructor, and format. Currently such decisions are often based on the fact that many of those employed make up the non-traditional student population.

Many of the writers suggest that most programs be considered as credit generating, (for instance, Lewis and Blake, 1978, and Ireland, 1973). Included with these credit-generating courses were vocational training programs, such as on-the-job training (Ireland, 1973). Since most budgets are based on credit generation, most colleges do not see another alternative. Lewis and Blake (1978) commented, "In general,

we believe that adult vocational programs in community colleges should be expanded as needed to offer part-time working students the opportunity to complete an associate degree or certificate" (p. 53).

Leister (1975) found that the most preferred location for classes was off-campus. This is consistent with the above-mentioned distrust of academic institutions by labor (Howard, 1979; Thompson, 1979; Fram, 1973). Abbot (1977) cited one example of such a program at LaGuardia Community College which used the union headquarters to train workers who wanted to upgrade skills. Fricano (1975) suggested other possibilities which might meet the need of service agencies:

Why can't a course in marriage and family living or drug education be arranged at a local parish on a Sunday morning? Why can't a program in typing be arranged through the state employment service in your community? Why can't a course in general education be offered in conjunction with the local public aid office? (p. 51)

In their survey of business and industrial firms (n = 258, or 88 percent return), Lewis and Blake (1978) included a number of items related to time. The amount of time required to complete a particular program or course sequence was the number one barrier. Two or more evenings every week were most favored, taking no more than four to six months. Others, such as Hannon (1976), believed that some want the programs at the end of the work shifts, but he concluded that because the college is providing a service, it must remain flexible as to time. Fricano (1975) believed that the employer will

provide an incentive to the employee if the class offered is on a "time-shared basis," one-half being during working hours and the other half outside of working hours. The literature seems to indicate that a successful program may well be determined by the time preference of the service population.

Two obvious alternatives for instructors were discussed. Normally the community college instructor who plans the course also teaches it (Hannon, 1976). Extreme care must be taken in the selection of an instructor who believes in teaching the non-traditional student and who is confident of handling this assignment. Usually the instructor should have some practical experience in the area to be taught (Fricano, 1975). The alternative to the college's own instructor is an employee of the service, commercial, or industrial agency. Hannon (1976) believed that "the college instructors are more objective in teaching the course, since instructors from the plant seem to resist change" (p. 159).

Many writers have suggested techniques appropriate to the teaching of the non-traditional student, or the "New Student," words favored by Cross (1977, xiii). In his survey of corporate executives, Wenig (1978) offered five suggestions regarding teaching methods:

1. Greater student involvement in the educational process.
2. Tailoring of methods, course length, and curriculum to individual needs,
3. Increased use of instructional technologies,
4. Active participative--learning by doing--and,
5. Instruction that is balanced more on the prac-

tical side (real or result oriented) and less on the theoretical (p. 46).

The remark made most often about format for programs for service, commercial, and industrial groups is that it must not be traditional. In their survey, Lewis and Blake (1978) found a rank order of preferred teaching format, with on-the-job training ranked highest and followed by short-term conferences or workshops, self-study with the aid of a teacher, correspondence courses, discussion groups, and classroom lectures. Rouche and Kirk (1973) and Cross (1977) agreed that the lecture is inappropriate. Roueche and Kirk said that these non-traditional "students . . . are simply not verbal learners, and they are incapable of acquiring knowledge by routine listening or reading" (p. 66). Cross (1977) went even further when she wrote that the lecture was inappropriate for most students, both the traditional and non-traditional. Instead of listening to a lecture, students learn most efficiently through the use of practical experience (Ireland, 1973).

DISCUSSION OF LITERATURE

Some reaction to the literature, particularly as it related to rural community colleges such as Worthington Community College, is pertinent to this study.

Howard, when citing declining enrollments, said that colleges can either cut back or seek new clientele. Howard's first alternative, that of retrenchment, is unsatisfactory,

as it results in lowered morale, reduction in program quality, and the eventual closing of the college and the deprivation of its services to the community. His second suggestion, the only viable alternative, is that of higher education creating new relationships with the community it serves and becoming more inviting and more accessible to that community. This second alternative accents the philosophy of community colleges in recent years toward greater comprehensiveness.

Those investigations completed by community colleges to establish relationships with new clientele have been done in urban settings and are not directly relevant to a small rural college. There may not be a paucity of such studies done by the rural college, but these researchers have failed to publish their results. Many writers, e.g., Vineyard, Margolis, and Dubay, clearly suggested that rural community colleges not only must become more active in conducting appropriate research but must share their investigations with others.

Another aspect lacking in the literature was the study of attitudes of community groups toward the community college. Hatley and Croskey's instrument was used to assess attitudes towards public education in general, not a specific level of public education or a particular institution.

The writers disagree about the relationship between higher education and the service, commercial, and industrial segments in the community, but they agree that colleges can function more effectively if they understand the community's

image of the college. Many writers are less complimentary of the university than they are of the community college which has historically provided services for community groups and which has thus received a positive image. Leister said that communities resist changing their attitudes. It is imperative, then, that problems of image be included in assessment and be addressed immediately.

When community colleges do provide continuing education, writers agreed that the programs should provide training in skills to keep pace with changing technology and in self-enrichment. Many writers, e.g., Fricano, Wenig, Levine and Connally, Funk, etc., discussed programs in skill training, and Fricano, Witherell, Bachman, and Sorensen emphasized the development of human resources.

Most writers were in agreement in their suggestions about the logistics of offerings to community groups. Most agreed that the classes should be offered for credit. The classes should be practical, not theoretical, in nature taking the form of on-the-job training. The classroom should be moved from a campus location to one most appropriate for the group being served.

It was on the basis of the above discussion and investigations that the design for this major research project was formulated.

Chapter 3

PROCEDURES AND METHODS

The research design for this study which included the sampling procedures, the variables, the instrument, and the procedure used in conducting the survey, all discussed in this chapter, was developed to address the four research questions. Directions for this design were suggested by the literature on programming for colleges and on attitude assessments of the clientele served by these colleges.

SAMPLE

The sample for this survey was drawn from the membership lists of the target area's chambers of commerce. The college's target area includes the six counties in southwest Minnesota: Rock, Nobles, Jackson, Cottonwood, Murray, and Pipestone. Seven chambers are in the six counties--in the cities of Worthington, Windom, Jackson, Slayton, Luverne, Mountain Lake, and Pipestone. Chamber membership lists were thought to provide the best sampling frame. First, one chamber executive indicated the scope of employment; the chamber members in Worthington employ 85 to 90 percent of the city's

labor force. Secondly, these lists are updated more often than the annually revised telephone directories. Finally, it was felt that the chamber of commerce endorsement would encourage greater participation.

These lists were reviewed and some members, known to have discontinued their membership, were eliminated from the sampling frame. The chamber executives or another individual familiar with the memberships helped to sort the businesses into the three categories of service, commercial, and industry. A simple stratified random sample was drawn from the commercial and service agency lists by city with 20 percent of 1215 agencies selected. Because of the small number of industries in the target area, 100 percent of this frame, or 56 agencies, was used.

In order to insure subjects' rights to anonymity, they were assured that no identifying information would be required for the study. Rules for voluntary participation were similarly observed.

OPERATIONAL DEFINITIONS OF THE VARIABLES

The independent variable was type of business agencies, categorized as service, commercial, or industry.

Attitude, classified as positive or negative, was operationally defined as a mean score on the questionnaire's twenty-item Likert scale completed by a respondent. A lower mean score was equated with a more positive attitude and a

higher mean score a negative attitude. A large proportion of threes on the Likert scale indicated that a respondent was undecided or unaware of the various aspects about Worthington Community College asked in the questions. A total-scale attitude score was thus determined.

Choice of offerings was a dependent variable and determined by the relative rank of selections of offerings by the respondents. Subjects were presented with a list of offerings and asked to indicate their interest in such classes or programs for themselves and for their employees. This is further described in the section on instruments below. "Yes" responses for employer and employee were counted and used to calculate ranks.

Two control variables were included in this investigation: city and size of business. City was predetermined by the sampling procedure. Size was self-reported on the questionnaire from a close-ended question. Four alternative choices were given. These four alternative sizes were later collapsed into three with small businesses identified as 1-10 employees, medium as 11-50, and large as over 50.

INSTRUMENT

The questionnaire (see Appendix A) was designed using suggestions from Hatley and Croskey (1978), Armijo, Micek, and Cooper (1978), Best (1977), and Babbie (1973).

The following procedure was used in developing the at-

titude scale. Faculty and administrators at Worthington Community College were arbitrarily selected to generate statements about three specific dimensions of the college: academic quality, community contribution, and class offerings. After these statements were compiled, duplicate statements were eliminated, and the remaining items were refined. Forty-three of these statements were given to eleven faculty and administrators, who volunteered to judge these items on a seven-point Likert scale ranging from "very positive" to "very negative." The statements for each dimension which most clearly illustrated an obvious positive or negative attitude were selected for the instrument; a five-point Likert scale was used with the following value ranges: (1) strongly agree, (2) agree with reservations, (3) undecided, (4) disagree with reservations, and (5) strongly disagree. In order to eliminate any biases in the presentation of these items on the instrument, the statements were randomly ordered.

To determine whether or not there were three distinct dimensions included in the scale, a pilot study was done and items were factor analyzed. (The questionnaire for the pilot study is Appendix B.) Because no distinct dimensions were indicated in this factor analysis, the twenty attitudinal statements were used in the instrument for the final study, and only a full-scale score was determined. (The results of the factor analysis are more fully discussed in Appendix C.)

The attitude statements were placed first on the instru-

ment because it was believed that the respondents would be most willing to complete this section. Informal comments from the respondents in the pilot study indicated some resistance in completing this section because of a lack of knowledge about the college. Reordering of the sections was considered in the design of the final instrument, but sections were not reordered because of a possible bias introduced into attitude if program and class offerings were presented first. This was of particular concern since the scale included statements about class offerings.

The second part of the instrument, the program needs assessment of commercial, industrial, and service agencies, modeled questions from the National Center for Higher Education Management Systems (Armijo, Micek, and Cooper, 1978), from Miramar College and Monroe Community College, and from a telephone survey of residents completed in January, 1979, by Worthington Community College. These were used for generating the list of offerings. The three administrators at Worthington Community College--the president, the dean of instruction, and the dean of students--also suggested offerings. While some of these offerings included have already been in the current curriculum at the college, the emphasis was on new offerings. It was believed that the current curriculum was designed primarily for the transfer student, a group not significant to this study, and that other courses appropriate for the service, commercial, and industrial agen-

cies are advertised well and available to those interested. The format for the program section was similar to a section in an instrument developed at the University of Northern Illinois (Dukes, 1976). Because of change in the format between construction of the pilot and final instrument allowing more space, more items were added to this section thus giving the college more information about needs assessment.

The third section of the questionnaire included questions about logistics for these offerings, such as credit or non-credit, location, time, instructor, and format. No modification of these items was suggested by the pilot study results, but one addition was made. At the request of the administration of Worthington Community College, a question about the most convenient time for offerings was added.

SURVEY

The following procedures were used in collecting the data:

1. A letter was sent from the college to each agency in the sample (see Appendix D for the letter sent to those in the pilot study and Appendix E for the letter sent to those in the final study). The letter informed the potential respondent about the nature of the survey, the procedure to be used in distributing and collecting the instrument, and the cooperation from the chamber of commerce.
2. In order to avoid the low response rate associated

with mail surveys, a procedure for personal delivery and collection of the questionnaire was developed.

Research assistants, recruited from the Worthington Community College student body, were trained in the procedures. Each assistant was assigned a specific city.

A few days after the introductory letters were mailed, subjects were contacted by telephone and asked for an appointment. If the subject agreed to participate, the assistant then delivered the questionnaire and arranged a second appointment for collection. It was anticipated that in most instances the instruments could be retrieved on the same day.

3. Several subjects could not be reached by telephone after numerous attempts. These individuals were contacted by mail and a survey was enclosed along with a stamped, self-addressed envelope. (See Appendix F.)

4. For respondents unwilling to complete the questionnaire the same day, the surveys were left along with a return envelope. In those cases when the instruments were not returned within the designated time period, additional requests, including more personal visits, were made, and finally a letter (see Appendix G) was sent along with a second copy of the instrument and a stamped, self-addressed envelope.

TREATMENT OF DATA

The sample was assessed by comparing response frequencies by type of agency and city, the bases of the stratified

sample. The size of agency, not used to stratify the sample, was also noted so that Worthington Community College's service area population was described better. The remaining analyses were addressed to the specific research questions raised.

Research question 1. The mean score for each subject's attitude toward Worthington Community College was determined by calculating the mean of the responses on the twenty attitude statements. Mean scores across individuals were calculated for type of agency, for city, and for size. An analysis of variance of these mean scores between types of agency by city and between size of agency by city was computed. Because of the number of "undecided" responses, an additional analysis of the attitude scores was completed; a Kendall's Coefficient of Concordance (W) was used to evaluate the correlation of the distance of the cities from Worthington Community College, the number of "undecided" responses, and the mean score of the attitude of the respondents of each city.

Research question 2. Those offerings marked "yes" by at least 30 percent of the respondents were ranked. The rankings were separately tabulated for type of agency and for cities for both self (employer) and employee. A Kendall's Coefficient of Concordance (W) was calculated to assess amount of difference in preferred offerings for self and employee between types of agency and between cities. Directions, if any, of these differences were noted.

Research question 3. The degree of association between mean scores of the respondent's attitude and preferred offerings for self and for employee was computed using Spearman's Rho (r_s). This analysis determined if those respondents with positive attitudes about Worthington Community College preferred more offerings from the college than those with more negative attitudes.

Research question 4. A frequency distribution was tabulated on respondents' preferences for location, instructor, format, and time for classes offered.

SUMMARY OF PROCEDURES AND METHODS

This study involved surveying the business community in the six-county area of southwestern Minnesota. On the survey instrument, business executives responded to a series of attitude statements, indicated their preference of college offerings for themselves and for their employees, and suggested their choice of location, instructor, format, and time for these offerings.

Members in the seven chambers of commerce in the six counties were selected. The sample was stratified by city and by type of agency--service, commercial, and industry.

Trained research assistants contacted, delivered, and picked up the questionnaires from the respondents. It was hoped that the personal contact by the research assistants would ensure a response rate appropriate for significant sta-

tistical analyses.

The frequency of responses to the survey was noted and evaluated for adequacy. Data related to research questions 1, 2, and 3 were tabulated and statistically analyzed. Frequency distributions of the data about the logistics for these offerings were tabulated.

Chapter 4

RESULTS

For this study, positive and negative attitudes by the business executives in six counties in southwestern Minnesota were noted, and the difference in these positive and negative attitudes between the types of agencies and cities was calculated. Respondents were also asked to indicate their suggestions about offerings from Worthington Community College which would be valuable to them. Relationships, if any, between the respondents' attitude and their desired offerings from the college were determined. Finally the respondents recommended possible locations, times, and instructors for these offerings as well as format.

In this chapter, the response rate from the sample was described. Then attention was turned to the research questions, summarized above. This chapter was a report of the data collected on each of these questions as well as the results of the statistical analyses.

FREQUENCY OF RESPONSES FROM THE SURVEY

Of the 299 subjects drawn from the sampling frame, 231, or 77.3 percent, responded. The return rate was lowest for commercial agencies at 72.6 percent but over 80 percent for the service and industrial agencies (see Table 1). Table 2 shows return rate by city, ranging from 85.3 percent from Pipestone to 70.5 percent from Jackson.

The majority of the agencies which responded employed ten or less (163 returns, or 70.6 percent of the total) (see Table 3).

RESEARCH QUESTION 1: Do attitudes (positive and negative) by business executives in six counties of southwestern Minnesota towards Worthington Community College vary between cities and between types of agencies?

Positive or negative attitudes were determined by a five-point Likert scale with 1.00 the positive pole and 5.00 the negative pole. The mean scores of attitude by type of agency and city are shown on Table 4. Greater differences of these mean scores were noted between cities than between agencies. An analysis of variance was conducted on these data (see Table 5). Differences between cities were found to be significant ($F = 5.00$) while no significant difference was noted between types of agencies ($F = .73$).

Table 1
Distribution of Responses
for the Three Sub-samples

Subsample	Number of Cases	Number of Returns	Percent of Returns
Service	126	101	80.1
Commercial	117	85	72.6
Industry	56	45	80.4
Total	299	231	77.3

Table 2
Distribution of Responses by City

City	Number of Cases	Number of Returns	Percent of Returns
Worthington	80	60	75.0
Windom	62	51	82.3
Jackson	44	31	70.5
Slayton	26	19	73.1
Luverne	35	26	74.1
Mountain Lake	18	15	83.3
Pipestone	34	29	85.3
Total	299	231	77.3

Table 3
Distribution of Responses
by Size of Business

Size	Number of Returns	Percent of Total (N = 231)
1-10	163	70.6
11-50	42	18.2
Over 50	26	11.2
Total	231	100.0

Table 4
Mean Scores of Respondent's
Attitude by Type by City

City	Service Mean	Commercial Mean	Industry Mean	Total Mean
Worthington	1.92	2.01	1.78	1.93
Windom	2.17	2.31	2.11	2.19
Jackson	2.52	2.56	2.75	2.57
Slayton	2.14	2.23	2.93	2.26
Luverne	2.35	2.18	2.10	2.21
Mountain Lake	2.57	2.75	2.70	2.65
Pipestone	2.49	2.59	2.73	2.56
Total	2.26	2.28	2.22	2.26

Table 5
Analysis of Variance by Type by City

Source of Variation	Sum of Squares	df	Variance	F Score
Cities	1.45	6	.24	5.00*
Types	.09	2	.035	.73
Interaction	.58	12	.048	
Total	2.12	20		
*Significant; $p \leq .05$				

Table 6 shows the mean score of respondent's attitude towards Worthington Community College by size of agency and city. More variations are noted between size of agency than between cities. Totals for size suggest more negative scores for smaller agencies and lower scores for larger agencies. Examination of these means by city, however, shows this difference to be inconsistent. An analysis of variance was conducted on these data (see Table 7). Differences between cities were found to be significant ($F = 7.17$) while no significant difference was noted between size of agencies ($F = .38$).

Mean scores of attitude of respondents (shown on Table 4 and Table 5) were more positive for those communities closest to the college and more negative for cities more distant from the college. It was further noted from examination of the raw data that respondents from these more distant towns had large numbers of "undecided" responses to the attitude statements. In order to evaluate the impact on mean attitude scores of the distance of the six cities from Worthington, the number of undecided responses was compared. These data are shown on Table 8 with cities listed in order of proximity from Worthington. A Kendall's Coefficient of Concordance (W) was calculated for the ranked distances, mean attitude scores, and percentage of undecided responses. A significant result ($W = .84$) was obtained.

Table 6
Mean Scores of Respondent's Attitude
by Size by City

City	1-10 Mean	11-50 Mean	Over 50 Mean	Total Mean
Worthington	2.02	1.82	1.79	1.93
Windom	2.22	2.13	1.90	2.19
Jackson	2.52	2.90	2.74	2.57
Slayton	2.16	2.25	2.73	2.26
Luverne	2.20	2.26	2.15	2.21
Mountain Lake	2.67	2.83	2.48	2.65
Pipestone	2.61	2.49	2.28	2.56
Total	2.29	2.18	2.20	2.26

Table 7
Analysis of Variance by Size by City

Source of Variation	Sum of Squares	df	Variance	F Score
Cities	1.66	6	.28	7.17*
Sizes	.03	2	.015	.38
Interaction	.47	12	.039	
Total	2.16	20		
*Significant; $p \leq .05$				

Table 8

Ranks of Distance, Mean Scores of Attitude, and
Percent of Undecided Responses by City

City	Ranked Distance	Mean Attitude Score and Rank	Percent Undecided and Rank
Worthington	1	1.93 (1)	21.8 (1)
Windom	2	2.19 (2)	37.2 (3)
Jackson	3	2.57 (6)	62.7 (5)
Slayton	4	2.26 (4)	50.0 (4)
Luverne	5	2.21 (3)	34.0 (2)
Mountain Lake	6	2.65 (7)	63.7 (6)
Pipestone	7	2.56 (5)	69.4 (7)
$W = .84; \chi^2 = 15.1; df = 6; p \leq .05; \text{Significant}$			

RESEARCH QUESTION 2: Are there differences between service, commercial, and industrial agencies between cities with respect to the college's offerings?

Rank orders of preferred offerings by type of agency by self (employer) and by employees are shown on Table 9 and Table 10 respectively. The twenty offerings selected most often by respondents were used.¹ Kendall's Coefficient of Concordance was calculated and resulted in identical W values (.572). Differences appear to be attributed to specific selections ranked uniquely by type. For industry, markedly higher ranks resulted for self for Interviewing, Labor Relations, and Negotiating Skills and lower rank for Selling Skills. For industrial employees, higher ranks were obtained for Supervisory/Employee Relations, Industrial Safety, and Plant Safety. Again, Selling Skills was ranked low. For commercial agencies discrepant ranks included Advertising, Selling Skills, Inventory, and Consumer Education for employer and Merchandise Display for employees. Respondents from service agencies showed only one marked inconsistency which was Public Speaking selected for employees only.

Kendall's Coefficient of Concordance was calculated for ranked selections by cities as shown on Table 11. A moderate

¹Because of the unavailability of computer programming, only the top twenty choices were used. These twenty were marked with a positive response by at least 30 percent of the respondents. This is the case for the analyses of all program selections.

Table 9
Ranked Offerings by Type by Self

Offering	Service	Type of Agency		Total Rank
		Commercial	Industry	
Employee Motivation	2	5	2.5	1
Investment Skills	3	1	8	2
Energy Conservation	5.5	3.5	2.5	3
Supervisory/Employee Relations	1	8.5	4.5	4
Leadership Training	4	8.5	1	5
Business Ethics	8	3.5	7	6
Solar Units	5.5	14	13	7
Retirement Planning	10	13	11.5	8
Public Speaking	7	15	14.5	9.5
Business Law	10	11.5	14.5	9.5
Efficiency Training	10	16.5	9.5	12
Selling Skills	12.5	6	19	12
First Aid	15	10	9.5	12
Interviewing	12.5	16.5	6	14
Advertising	17.5	2	20	15
Consumer Education	15	11.5	18	16
Labor Relations	15	19	4.5	17
Inventory	20	7	16	18
Negotiating Skills	17.5	20	11.5	19
Physical Fitness	19	18	17	20

$W = .572$; $\chi^2 = 32.60$; $df = 2$; $p \leq .05$; significant W

Table 10
Ranked Offerings by Type by Employee

Offering	Service	Type of Agency Commercial	Industry	Total Rank
Energy Conservation	2	2	2	1
Employee Motivation	1	4.5	3	2
First Aid	5.5	3	4	3
Efficiency Training	3	4.5	8	4
Selling Skills	7	1	18	5
Leadership Training	8	7	5.5	6
Supervisory/Employee Relations	5.5	11	1	7
Business Ethics	9	9.5	13	8
Consumer Education	12.5	8	15	9
Retirement Planning	10.5	14	8	10
Public Speaking	4	15	18	11
Investment Skills	14	13	15	12
Solar Units	12.5	19	10.5	13
Inventory	20	9.5	12	14
Industrial Safety	18	16.5	5.5	15.5
Labor Relations	15	18	10.5	15.5
Receptionist Skills	10.5	20	15	17.5
Merchandise Display	19	6	20	17.5
Plant Safety	16.5	16.5	8	19.5
Physical Fitness	16.5	12	18	19.5

$W = .572$; $\chi^2 = 32.59$; $df = 2$; $p \leq .05$; significant W

Table 11
Ranked Offerings by City by Self

Offering	Cities*							Total Rank
	1	2	3	4	5	6	7	
Employee Motivation	1	6	4	4	3	11	2.5	1
Investment Skills	2	9.5	4	4	8	1	3.5	2
Energy Cons.	3.5	3.5	1	1	3	8.5	9.5	3
Sup./Emp. Rel.	3.5	9.5	7	7.5	5.5	4.5	1	4
Leadership Training	6	6	2	7.5	1	4.5	7	5
Bus. Ethics	7.5	2	9.5	4	5.5	4.5	7	6
Solar Units	10	9.5	15.5	4	18	4.5	11.5	7
Ret. Planning	12.5	1	9.5	4	18	11	18	8
Pub. Speaking	16	18	7	13.5	11.5	4.5	2.5	9.5
Bus. Law	7.5	12	19	10	15	4.5	9.5	9.5
First Aid	5	3.5	17.5	19	18	17.5	13.5	12
Selling Skills	9	16	12.5	13.5	11.5	8.5	13.5	12
Efficiency Training	14.5	13	12.5	17	3	14	7	12
Interviewing	11	14	20	10	8	17.5	3.5	14
Advertising	12.5	16	12.5	10	15	11	16	15
Consumer Ed.	14.5	6	7	17	11.5	14	20	16
Labor Rel.	18.5	16	12.5	13.5	11.5	14	16	17
Inventory	17	19	15.5	13.5	15	17.5	16	18
Negot. Skills	18.5	20	4	20	8	20	11.5	19
Phys. Fitness	20	9.5	17.5	17	20	17.5	19	20

$W = .494$; $\chi^2 = 65.74$; $df = 6$; $p \leq .05$; significant W

*Code for Cities: 1. Worthington; 2. Windom; 3. Luverne; 4. Slayton; 5. Mountain Lake; 6. Jackson; and 7. Pipestone

association was obtained ($W = .494$). The coefficient was significant for the level of confidence established. Examination of the table shows no systematic differences in the rankings that would account for the remaining variance.

Selections were ranked for employees by city (see Table 12) and submitted to a Kendall's Coefficient of Concordance. A significant and moderate coefficient was obtained ($W = .549$). No patterns in the rankings were noted to account for the difference between cities.

RESEARCH QUESTION 3: What is the relationship between desired offerings and attitudes?

Mean scores of the respondent's attitude were compared to selection of offerings for self and for employee, and association for each was assessed with Spearman's Rho (r_s). The resulting rank-order correlations were non-significant. Table 13, on which these data appear, suggests that attitudes approximately by the neutral point--level three of the five-point Likert scales--and toward the negative pole of the scale identify cut-off points at which the number of selections drops markedly.

RESEARCH QUESTION 4: What are the best decisions the college can make with respect to logistics about program offerings, i.e., credit or non-credit, location, time, instructor, and format?

A frequency distribution was tabulated for each of the questions related to logistics for the offerings.

Table 12
Ranked Offerings by City by Employee

Offering	1	2	3	4	5	6	7	Total Rank
Energy Cons.	2	3	1	1	3.5	5	3.5	1
Employee Motivation	4	2	10.5	4.5	1	1.5	2	2
First Aid	1	1	6.5	10	11	12.5	5	3
Efficiency Training	9.5	9	2	7.5	2	1.5	1	4
Selling Skills	3	6	3.5	7.5	7.5	8.5	8.5	5
Leadership Training	5.5	4	10.5	13.5	7.5	5	3.5	6
Sup./Emp. Rel.	5.5	10	6.5	10	3.5	5	8.5	7
Bus. Ethics	9.5	11	10.5	2	11	12.5	11	8
Consumer Ed.	13	6	3.5	4.5	5	5	16.5	9
Ret. Planning	14	8	14.5	4.5	7.5	12.5	13	10
Pub. Speaking	7	16.5	14.5	17	14.5	8.5	8.5	11
Investment Skills	8	12.5	20	13.5	17.5	19	8.5	12
Solar Units	11	16.5	6.5	10	20	20	13	13
Inventory	15.5	16.5	14.5	13.5	11	17.5	13	14
Industrial Safety	15.5	19	6.5	20	14.5	16	15	15.5
Labor Rel.	19	12.5	17.5	17	14.5	5	16.5	15.5
Recept. Skills	17.5	14	14.5	13.5	7.5	12.5	20	17.5
Merch. Display	12	16.5	17.5	4.5	19	17.5	18	17.5
Plant Safety	20	20	10.5	19	14.5	12.5	6	19.5
Phys. Fitness	17.5	6	19	17	17.5	12.5	19	19.5

$W = .549$; $\chi^2 = 73.07$; $df = 6$; $p \leq .05$; significant W

*Code for Cities: 1. Worthington; 2. Windom; 3. Luverne;
4. Slayton; 5. Mountain Lake; 6. Jackson; and 7. Pipestone

Table 13

Rankings of Mean Score of Attitude and Mean
"Yes" Responses on Offerings for Self and Employee

Mean Score of Attitude	Rank	Mean "Yes" Responses for Self	Rank	Mean "Yes" Responses for Employees	Rank
1.20-1.29	1	10.5	18	12.5	14
1.30-1.39	2	12.6	15	8.1	19
1.40-1.49	3	26.2	1	10.4	16
1.50-1.59	4	16.0	13	17.7	7
1.60-1.69	5	10.9	17	7.5	26
1.70-1.79	6	21.6	5	22.6	3
1.80-1.89	7	11.1	16	11.8	15
1.90-1.99	8	23.0	4	22.9	2
2.00-2.09	9	18.4	11	18.9	6
2.10-2.19	10	20.0	7	16.6	8
2.20-2.29	11	18.8	10	15.17	10
2.30-2.39	12	19.2	9	13.3	12
2.40-2.49	13	21.0	6	19.6	5
2.50-2.59	14	18.2	12	16.1	9
2.60-2.69	15	23.9	3	24.8	1
2.70-2.79	16	19.5	8	13.0	13
2.80-2.89	17	25.5	2	20.6	4
2.90-2.99	18	8.4	19	8.6	18
3.00-3.09	19	13.1	14	13.8	11
3.20-3.29	20	0	23	9.0	17
3.30-3.39	21	1.0	21	1.0	22.5
3.40-3.49	22	3.0	20	3.0	21
3.70-3.79	23	1.0	21.5	1.0	22.5

Self by Selection: $r_s = .343$; $N = 23$; $p \leq .05$; non-significant
Employee by Selection: $r_s = .248$; $N = 23$; $p \leq .05$; non-significant

For location, shown on Table 14, 55.3 percent preferred courses were offered on-campus and 23.7 percent off-campus. Many respondents listed other locations than "on campus" or "off campus"; nineteen (8.5 percent) suggested using schools in the local public school district and six (2.7 percent) mentioned the use of area vocational school centers.

For instructor, 55.8 percent of the respondents designated a Worthington Community College instructor as first choice; 31.1 percent preferred a member of the business community (see Table 15). Under "other," thirty-one (11.3 percent) specifically said that "any qualified person" was satisfactory.

A markedly high number (73.3 percent), as indicated on Table 16, said that the classes should be offered for both credit and non-credit. Only 5 percent preferred only non-credit classes while 21.3 percent preferred credit courses.

The four-to-six-week session was the preferred length by 56.0 percent, as shown on Table 17. For other choices, eight respondents (3.7 percent) wrote that the length "depends on the course."

The preferred times for classes by 65.5 percent were the evening hours (see Table 18). Nineteen of the twenty-four and twenty-nine of thirty-four who chose mornings and afternoons respectively selected Saturday as a possible day.

SUMMARY OF RESULTS

Of the 299 subjects drawn for this survey of business executives in the six-county area of southwestern Minnesota,

Table 14
Frequency Distribution of Employer's
Preferred Location for Classes

Preferred Location	Number	Percent of Total
On Campus	124	55.3
Off Campus	53	23.7
Other	47	21.0
Total	224*	100.0

*This total differs from 231, the number of respondents, because of varying number of responses on each questionnaire.

Table 15
Frequency Distribution of Employer's
Preferred Instructor for Classes

Preferred Instructor	Number	Percent of Total
Worthington Community College Faculty	153	55.8
Member of Business Community	85	31.1
Other	36	13.1
Total	274*	100.0

*This total differs from 231, the number of respondents, because of varying number of responses on each questionnaire.

Table 16

Frequency Distribution of Employer's
Preference for Credit or Non-Credit Classes

Type Class	Number	Percent of Total
Credit	47	21.3
Non-credit	11	5.0
Both	162	73.3
Other	1	0.4
Total	221*	100.0

*This total differs from 231, the number of respondents, because of varying number of responses on each questionnaire.

Table 17
Frequency Distribution of Preferred
Length of Classes

Length	Number	Percent of Total
10 to 12 week period (probably one or two hour periods)	45	20.6
4 to 6 week periods (probably one or two hour periods)	122	56.0
1 or 2 days (probably one or two hour periods)	36	16.5
Other	15	6.9
Total	218*	100.0

*This total differs from 231, the number of respondents, because of varying number of responses on each questionnaire.

Table 18
Frequency Distribution of Preferred
Times for Classes

Times	Number	Percent of Total
Mornings	24	9.6
Afternoons	34	13.6
Evenings	163	65.5
All day	26	10.4
Other	2	0.8
Total	249*	99.9

*This total differs from 231, the number of respondents, because of varying number of respondents on each questionnaire.

231, or 77.3 percent, responded. Pipestone subjects at 77.3 percent completed the instrument at a higher rate than those from the other six cities. Business managers from service and industrial agencies returned over 80 percent of the questionnaires.

Respondent's Attitude Scores. The total mean scores of attitude toward Worthington Community College from the 231 respondents was 2.26. Analyses of variance showed a significant difference of respondent's mean scores between cities and no significant difference between types and sizes of agencies. The number of "undecided" responses was noted. A W test determined that there was a strong positive correlation between the distance of the cities from the college and the number of "undecided" responses.

Respondent's Desired Offerings. Preferred offerings were ranked by the employer for self and for employee by type of agency and by city. A W was calculated to determine the correlation of ranked offerings by employer by type of agency and by employee by type of agency. In both instances a positive association resulted, a significant W. The same test showed that a moderate association, a significant W, was obtained of preferred offerings of self by city and of employee by city.

Relationship Between Desired Offerings and Attitudes. Spearman's Rho score indicated a non-significant association

between mean score of attitude and the number of "yes" responses to offerings.

Logistics About Offerings. A frequency distribution was noted from data on the questions related to logistics. Respondents showed a preference for on-campus courses, a Worthington Community College instructor, courses offered for both credit and non-credit, and evening classes for a four-to-six- week period of time.

Chapter 5

IMPLICATIONS AND RECOMMENDATIONS

Business executives indicated their attitude towards Worthington Community College, preferred offerings for themselves and their employees, and their recommendations about the logistics of these offerings. Relationships between attitudes and preferred offerings were determined. Attitude and preferred offerings were further evaluated by city, by type of business, and by size of business. In order to clarify some of the differences between cities, an additional analysis was done taking the distance of the cities from the college into consideration. The results of these analyses are discussed below. Also specific implications for the small rural community college, and particularly Worthington Community College, are suggested. The implications and recommendations follow an assessment of the response rates.

ASSESSMENT OF RESPONSE RATES

For this study, an acceptable response rate was pre-established as a minimum of 70 percent. The response rate

actually obtained was 77.3 percent, close to the 80 percent which Kerlinger (1973) determined as necessary for statistical significance.

Comparisons of the obtained sample to the originally drawn sample stratified for city and type of agency showed some discrepancies between both cities and types, but all rates remained greater than 70 percent. This indicates that conclusions might be less firm for those cities and types where lowest return rates, and therefore, greater probability of error, are identified (Jackson with 70.5 percent and commercial agencies with 72.6 percent return); and, secondly, that while lower return rates were found in these instances, an acceptable rate was obtained in all cases.

Both the acceptability of the rate and the differences seemed to be attributable to the method of questionnaire distribution. Response rates were much higher for this study than for mail surveys (Babbie, 1973; Armijo, Micek, and Cooper, 1978). In this study trained research assistants personally contacted, delivered, and in most cases collected the questionnaires from the respondents. Since these assistants were assigned different cities, the variations in response rates appear to be a treatment effect; that is, differences between the assistants with respect to their interaction with the respondents.

Reasons for the disparity in the percentage of responses from the subsamples, approximately 8 percent less response

from the commercial agencies than from the service and industrial agencies, are at best speculative. A treatment effect would not have accounted for the difference because each assistant had contact with all types of agencies within the assigned city and because the procedure used in contacting respondents was the same across types of agencies. It would seem more logical to conclude that the higher response rate from the service agencies is that Worthington Community College provides more offerings and programs for those who have more contact with the college. For example, the college has recently adopted curricula in Human Services, Therapeutic Recreation and Patient Account Management, and most of the placements in cooperative education have been with service agencies, particularly the schools and city and county government. Additionally, the college offers such classes as tutoring, real estate, and aging, which appeal to service agencies. Similar programs and classes for industrial agencies have not been implemented.

Because the sample was not stratified according to size of business, the percentage of returns from the entire sample by size of agency is unknown. Examination of the data, however, sheds some light on this aspect of the service population that would be relevant to programming decisions. It appears, based on these data, that the target area of Worthington Community College is made up predominantly of small businesses. The relevance to programming decisions is that

to achieve the numbers required to offer courses, they must appeal to a more diverse target population, or individuals with diverse occupational interests as opposed to large numbers of individuals with same occupational interests.

Recommendations. Based on the above observations and discussion, the following recommendations are made:

1. In future surveys by researchers in education, the use of trained research assistants making personal contact with respondents is suggested to help ensure an acceptable response rate.
2. Programming by Worthington Community College for the business community must be addressed to a population made up predominantly of small-size agencies so the offerings must appeal to a diverse group.

ATTITUDE EVALUATION

Overall, attitudes towards Worthington Community College were positive for the total sample across cities and types of agencies. Attitudes were defined here on a Likert scale as ranging from very positive (1.0) through a neutral point (3.0) to very negative (5.0). Higher scores obtained from the sample were all below 4.0. A high number of neutral responses appeared to account for higher, and therefore, more negative attitude scores.

A significant difference was found between cities with

respect to mean scores of the respondent's attitude. Directions of differences appeared to be closely aligned with distance from Worthington Community College. It was also noted that a greater number of "undecided" or neutral responses were obtained from communities more distant from the college. A rank order correlation (W) of +.84 (significant at $p \leq .05$) was obtained between mean score of attitude, distance from the college, and number of undecided responses. These results suggest that what appears to be more negative attitudes are likely to be a product of distance and a corresponding reduction in familiarity with the college and its program. A more concentrated effort to reach those areas on the fringe of the college's service area, would be in order.

Specific reasons for the familiarity of Worthington Community College, as shown by fewer number of "undecided" responses, in Worthington, Windom, and Luverne, and, to a lesser extent, Slayton can be surmised. First, these are all locations where the college offers classes, which are advertised in the local newspapers and radio thereby making the college known to the cities' residents. Secondly, the college is a member of the chamber of commerce in each of these cities; thus, the administration has made contacts with many of the respondents in the survey. In the other three cities--Jackson, Pipestone, and Mountain Lake--the college does not offer off-campus courses nor is it a member of the

chambers of commerce in each city.

The number of neutral scores might also be interpreted as an indicator that a more definitive measure of attitude should be developed. It was hoped that three distinct attitude dimensions would be identified: quality of faculty, program, and community contribution. A factor analysis of pilot study data showed no consistent distinctions along these or other dimensions. It could not be determined whether these results were due to the scale items themselves or a product of unfamiliarity with the institution. Certainly more work needs to be done in the area of attitude measurement if a college's image in the community is to be assessed fully and used effectively in making programming decisions, as recommended by Howard (1979), Thompson (1979), Abbot (1973), and Levine and Connolly (1971).

No significant differences in attitude as shown by the mean scores were found between types or between sizes of businesses. This evidences a degree of homogeneity in the population that should facilitate program planning for individuals from different occupations.

The results of the attitude data do appear to affirm Leister's (1975) contention that when contact between the college and its communities are extensive, trust develops; when colleges cloister themselves from their communities, suspicion arises. This seems to be the case with Worthington Community College. In those communities where con-

tacts have been made, trust, as shown by the more positive attitude scores, has been established.

Recommendations. Based on the above observations and discussion, the following recommendations are made:

1. Worthington Community College should continue its programs and classes in Worthington, Windom, Luverne, and Slayton, along with its chamber of commerce membership in the former three.
2. The college must recognize the lack of information about the college in those cities farthest from the college, mainly Mountain Lake and Pipestone. More effort should be made to get information about Worthington Community College to these communities.
3. Contact should be made in Jackson, Pipestone, and Mountain Lake by the college through off-campus classes in order to help the college and the communities to develop a trust relationship.
4. The college should consider becoming an active member of the chambers of commerce in Pipestone, Jackson, Mountain Lake, and Slayton.

PREFERRED OFFERINGS

For approximately the first thirty-five years of its existence, the college in Worthington used "junior college" in its title and believed that its primary role was to serve the transfer student, the philosophy of the traditional col-

lege. Results from this study confirm assertions by this college and other administrations as well as Wenig (1978), Levine and Blake (1978), Fram and Clarcq (1978), Abbot (1977), Funk (1976), Fricano (1975), and Levine and Connolly (1971) that community colleges must address career training and upgrading as well as traditional academic content. Program and class offerings presented for selection to respondents in this study were heavily weighted with skill related courses. Nine of the twenty most frequently selected offerings were relevant to job skills. These findings suggest the need for both types of programs: career oriented classes should be continually developed and refined with changes in the business community, and the academic programs should be maintained for traditional transfer students and nontraditional students seeking self-enrichment.

Four correlations with preferred offerings were calculated: (1) employers between types of agencies, (2) employers between cities, (3) employees between types of agencies, and (4) employees between cities. While significant moderate positive associations were found in these four analyses, there were portions of the variance unaccounted for by the measures. These correlations indicate that courses do not have to be designed in most cases for a single segment of the population--type of agency or city--since there were large numbers of agreement in choice. There are apparently common

interests across groups. This makes designing and implementing new programs more feasible for the college. At the same time, the correlations indicate that other factors are contributing to choice as well. Because of computer limitations present in this study, it was impossible to consider choice by city by type of agency in one analysis. The interaction of those two variables should be further analyzed where better computer facilities are available.

At the same time, the unaccounted for variance associated with correlations of these magnitudes, requires further examination in order to understand types of choices made with respect to program selection. Additional variance may be a product of either additional factors unidentified here or of an interaction between cities and types of agencies. Because of the unavailability of the required computer program, a three-way analysis of selection, city, and type was not calculated here. This presents a serious methodological limitation to the study since such an analysis would address the question of whether there was 1 group or 3, 7, or 21 groups, each with specific needs.

While no firm conclusions could be drawn from these analyses, this section was seen as important in that community members were approached by the college and asked about their preferences. This might be equated with what Abbot (1977) called making the "first move" in his discussion of relationships between business and higher education insti-

tutions.

Recommendations. The recommendations as a result of the above discussion about preferred offerings are as follows:

1. Worthington Community College should not hesitate to develop programs and classes unrelated to the traditional transfer curricula.
2. Those who develop programs at the college should make a vigorous effort to increase the amount of offerings for those in the business community, using the preferences indicated in this survey as a guide.
3. For the most part, offerings for those in the business community do not have to be developed specifically for those in certain types of businesses or from particular cities.
4. Future research by Worthington Community College should include correlations of preferred offerings of employers and employees between types of agencies and cities.
5. Additional study should be developed to identify other factors contributing to program and class choice.

RELATIONSHIP BETWEEN ATTITUDE AND OFFERINGS

An important part of this study was to relate the attitude of the respondents to their preferred offerings. Leister (1975), one of the few writers to discuss such a relationship, noted that colleges must take advantage of

positive attitudes of their clientele on particular dimensions such as continuing education when developing programs. As already discussed, the respondents' attitude towards Worthington Community College was positive and the number of desired offerings high. Yet when the ranked mean scores of attitude were compared to the mean number of respondent's "yes" responses to offerings at each attitude level, the result was non-significant.†

A number of reasons may have created this non-significance. First, the evaluation of attitude may be flawed. Even though care was taken in developing the attitude section of the survey's instrument, a more definitive measure of attitude may have been needed (see above discussion and discussion of dimensions of attitude in pilot study, Appendix C). In addition, with the number of "undecided" responses to the attitude statement, some questions can be raised about the interpretation of the mean scores from each city, which would then tend toward the neutral point on the Likert scale. Without the neutral responses, the mean attitude scores may be much different. Furthermore, very few of the respondent's mean scores were on the negative side of the neutral point on the Likert scale; with very few exceptions, only those with positive attitudes towards the college were indicating preferences for offerings. If the scores were more evenly balanced throughout the entire five-point scale, as many on the negative side as well as on the

positive side of the neutral point, the Spearman test results may have been different.

Recommendations. The recommendations as a result of the above discussion about the relationship between attitude and preferred offerings are as follows:

1. On further attitude studies by Worthington Community College, careful preparation of the instrument must be done to assure reliability.

2. Further analyzation by the computer, of the mean scores of the respondent's attitude with the omission of the neutral responses and the relationship of these scores to preferred offerings should be done by Worthington Community College.

LOGISTICS

Various writers address issues of logistics of preferred offerings. On some of these issues, the respondents to the survey agreed with the information from the literature; on others, they did not.

One issue of disagreement was the offering of credit-generating courses. As the writers, e.g., Lewis and Blake (1978) and Ireland (1973), suggested, Worthington Community College offers primarily credit-generating classes in its continuing education program because budgets for Minnesota Community College have been based solely on the amount of credits taken by students. A markedly high number of the respondents of this study (73.3 percent) believed that of-

ferings should be for both credit and non-credit. Recently there has been a move by the Minnesota state legislature to establish a method of reimbursement to the community colleges for non-credit classes. This study substantiates the need for such reimbursement.

Another disagreement between the writers and the respondents is the preferred location. Approximately 55 percent of the respondents suggested on-campus courses, contrary to the opinion of Abbot (1977), Leister (1975), and Fricano (1975). The respondents from those cities with the most positive attitudes--Worthington, Windom, Luverne and Slayton--have opportunities for off-campus courses held in local school district facilities, a location often mentioned on the questionnaire. It appears that the respondents usually associate educational offerings with an educational facility, not a place of business.

Business executives preferred classes for a shorter time period, four to six weeks, than that discussed by Lewis and Blake (1978) or that used by Worthington Community College. The respondents did suggest continuance of the college's practice of holding continuing education during the evening. Some consideration by the college should be given to Saturday classes as forty-eight respondents chose this time. The college has offered courses on Saturday on a limited basis and has had some success with this practice; continued use of Saturday classes appears to be warranted.

No respondent indicated scheduling classes with work shifts as Fricano (1975) suggested.

More than half of the respondents (55.8 percent) in this study gave clear indication that they preferred a member of the Worthington Community College faculty as the instructor. Hannon (1976) suggested the use of college faculty. Another 11.3 percent said that "any qualified person" was satisfactory. There were indications from the written comments on the survey that "qualified" referred to someone who understood the subject matter, not necessarily someone with an understanding of effective instructional techniques. Hopefully, the faculty and this qualified person would be familiar with the instructional techniques suggested by Wenig (1978), Lewis and Blake (1978), Cross (1977), and Roueche and Kirk (1973) for the non-traditional student.

Recommendations. The recommendations as a result of the discussion related to logistics are as follows:

1. Worthington Community College should work toward some flexibility in allowing students enrolled in continuing education offerings to earn credit or to register for no credit.
2. Classes should be held in an educational facility, either the college or a local school district building, not a place of business.
3. Continuing education courses for business should last from four to six weeks. Classes should continue to be

held during the evenings with some consideration given to Saturday.

4. Faculty from Worthington Community College should be utilized, when possible, to teach offerings for those in the business community.

5. Selection of the instructor should be in part made on the basis of his or her willingness to work with the non-traditional student.

SIGNIFICANCE FOR RESEARCH ESPECIALLY FOR RURAL COMMUNITY COLLEGES

The need for systematic studies such as this one for Worthington Community College can be well documented, particularly in the last few years when the educational institution has been forced to become accountable both in quality programming and costs. Ferguson (1975) and Howard (1979) are two of the writers who emphasized assessing community needs and attitudes before establishing programs. Additional pressure has been placed on colleges in maintaining these quality programs because of dwindling enrollments and reduction in budgets.

There are indications at Worthington College that establishing programs based on needs assessments are at least part of the solution to dwindling enrollments. In 1979 a telephone survey of the residents in the college's target area led to curricula attractive to larger numbers of students and an increase in full-year equivalent students during

the following academic year. Current projections for 1980-1981 from enrollment applications are for additional increases. This study will provide similar kinds of data for more quality offerings for a wider range of students.

Inherent in the philosophy of the community college is the provision of comprehensive programs for the communities it serves. These programs reach the non-traditional student as well as the recent high school graduate. On one hand, the community college is told to provide increased offerings for a larger cross-section of its population; on the other hand, the small rural community college, such as Worthington Community College, lacks the resources both in personnel and finances to conduct the research necessary to identify the service population.

The main problem may not be that such research has been done but that the primary source of information, the professional journal, has ignored this research. Margolis (1978) has made this charge, maintaining that the small community college has been discriminated against and is being ignored. It must be the responsibility of those conducting research for the small rural community college to share some of the findings with others in similar positions.

One such finding in this study important to all studies, not only those for the small rural community college, is the use of the research assistant in gathering information. Bab-

bie (1973) said that conclusive evidence about the value of the research assistant had not been reached. Armijo, Micek, and Cooper (1978) believed that the use of the research assistant would depend on the number in the survey, but they suggested no number. Based on the results of this study, the face-to-face contact by the trained research assistant will help to ensure an acceptable response rate. This method can be used for the number of respondents, 231, in this survey. With using students from the college, some who had other part-time employment, this number seemed to be the maximum for six assistants. If full-time assistants could have been used, more contact could have been made. It was also found to be important that the assistants were given explicit instructions about their behavior in making the contacts so as not to bias the respondents when they completed the questionnaire.

It was hoped that this study would have made an important contribution to the technology of studying attitudes towards colleges. There was a paucity of similar investigations available. The results of this study seem to reflect the positive attitudes of the respondents. The non-significant relationship between attitude and preferred offerings and the high number of neutral responses also suggests that the measure needs more refinement. At the same time, this measure may provide some initial direction in the study of attitudes toward educational institutions in the rural com-

munity where the number of potential students is limited. It may also help to determine the effect of attitude on program offerings.

One item of information found in this study but not addressed in the earlier examinations of attitudes toward institutions of higher education was that, with few exceptions, employers indicate the same preferred offerings for themselves and their employees. This type of information is important in further defining the population and the number of distinct segments within it.

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APPENDICES

83

92

APPENDIX A

FINAL INSTRUMENT

SURVEY OF COMMERCIAL, SERVICE, AND INDUSTRIAL AGENCIES

This questionnaire is designed for us to get an idea of the feelings within the community about Worthington Community College (WCC) and the programs it offers or can offer. Please answer all three parts. Thank you very much for your participation.

Part 1. Answer according to your level of agreement or disagreement with the following statements. Use the following choices:

1. = Strongly agree
2. = Agree with reservations
3. = Undecided
4. = Disagree with reservation
5. = Strongly disagree

For instance, place 1 in the space if you strongly agree with the statement, 2 if you agree with reservations, and so forth.

1. _____ WCC faculty are concerned about students.
2. _____ WCC offers a wide variety of courses.
3. _____ WCC offers courses which appeal to me.
4. _____ WCC brings undesirables into the community.
5. _____ WCC has excellent physical facilities.
6. _____ If someone wants to go to college, he or she should go right to a university, not to WCC.
7. _____ WCC should invite actors and actresses from the Guthrie Theater even if there is a cost, to perform for its students or for the community.
8. _____ WCC provides interesting educational programs for adults.
9. _____ WCC's faculty do not care about the college.
10. _____ WCC is only for kids.
11. _____ WCC hasn't made an effort to provide classes at convenient times for those employed.
12. _____ WCC is a good place to begin a college education.
13. _____ WCC has a good library.
14. _____ WCC faculty participate in community matters.
15. _____ WCC enriches the cultural life of southwestern Minnesota.
16. _____ WCC cares about the adults in the community.

(Please turn page)

17. _____ WCC is just another high school.
 18. _____ WCC has a well-trained faculty.
 19. _____ WCC is less costly than other colleges.
 20. _____ WCC does not have a good reputation as a place
 for students planning to transfer.

Part II. For each of the classes or programs listed below, indicate whether or not you would like to see it offered. First for yourself (Column 1) and then for employees working in your firm (Column 2).

OFFERINGS

FOR SELF

FOR EMPLOYEES

	Yes	No	Unde- cided	Yes	No	Unde- cided
1. Plant safety	1.			1.		
2. Building solar units	2.			2.		
3. Key punching	3.			3.		
4. Public Speaking	4.			4.		
5. Supervisory/Em- ployee relations	5.			5.		
6. High school equi- valency courses	6.			6.		
7. Health care	7.			7.		
8. Employee moti- vation	8.			8.		
9. Minority rela- tions	9.			9.		
10. Business Ethics	10.			10.		
11. Interviewing	11.			11.		
12. Mass Communi- cations	12.			12.		
13. Consumer edu- cation	13.			13.		
14. Group dynamics	14.			14.		
15. Blueprint read- ing	15.			15.		
16. Industrial safety	16.			16.		

(Please turn page)

OFFERINGS	FOR SELF			FOR EMPLOYEES		
	Yes	No	Unde- cided	Yes	No	Unde- cided
17. OSHA regulations	17.			17.		
18. Energy conser- vation	18.			18.		
19. Labor relations	19.			19.		
20. Negotiating skills	20.			20.		
21. Efficiency training	21.			21.		
22. English as a second language	22.			22.		
23. Basic reading	23.			23.		
24. Basic writing	24.			24.		
25. Basic mathe- matics	25.			25.		
26. Speed reading	26.			26.		
27. Physical fitness	27.			27.		
28. Stenography	28.			28.		
29. Receptionist skills	29.			29.		
30. Business forms	30.			30.		
31. Leadership training	31.			31.		
32. Selling skills	32.			32.		
33. Dictaphone	33.			33.		
34. Welding	34.			34.		
35. Drafting	35.			35.		
36. Computer pro- gramming	36.			36.		
37. Investment skills	37.			37.		
38. Business law	38.			38.		
39. First aid	39.			39.		
40. Current events	40.			40.		

(Please turn page)

OFFERINGS

FOR SELF

FOR EMPLOYEES

	Yes	No	Unde- cided	Yes	No	Unde- cided
41. Merchandise display	41.			41.		
42. Interior decorating	42.			42.		
43. Creative writing	43.			43.		
44. Commercial art	44.			44.		
45. Child care	45.			45.		
46. Research skills	46.			46.		
47. Electronics	47.			47.		
48. Chemical technology	48.			48.		
49. Retirement planning	49.			49.		
50. Advertising	50.			50.		
51. Landscaping for energy	51.			51.		
52. Inventory	52.			52.		
53. Hydraulics	53.			53.		
54. Diesels	54.			54.		
55. Electricity/wiring	55.			55.		
56. Agricultural chemicals	56.			56.		
57. Vegetable gardening	57.			57.		
58. Others (please list)	58.			58.		
59. Others	59.			59.		
60. Others	60.			60.		

Part III. Please respond to the following.

1. How many employees are in your firm?

a. _____ 1-10

b. _____ 11-50

(Please turn page)

- c. ☐ 51-100
 d. ☐ Over 100
2. How would you classify your place of employment?
 a. ☐ commercial (wholesale or retail)
 b. ☐ industry
 c. ☐ service
 d. ☐ other - please explain _____
3. What is the best location for classes?
 a. ☐ on Worthington Community College campus
 b. ☐ off-campus, probably at a business location
 c. ☐ other - please list _____
4. Who should teach these classes?
 a. ☐ a Worthington Community College instructor
 b. ☐ a member of the business community
 c. ☐ other - please list _____
5. Should these classes be offered for
 a. ☐ credit
 b. ☐ non-credit
 c. ☐ both credit and non-credit
6. What format should be used?
 a. ☐ 10 to 12 week period (probably one or two hour periods)
 b. ☐ 4 to 6 week periods (probably one or two hour periods)
 c. ☐ 1 or 2 days (probably six to eight hour periods)
 d. ☐ other - please explain _____
7. Please check any of these times most convenient for offering classes.

	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
morning							
afternoon							
evenings							
all day							

Thank you. If you have questions please feel free to call me at 372-2107.

Charles Moore

APPENDIX B

INSTRUMENT USED IN PILOT STUDY



WORTHINGTON COMMUNITY COLLEGE

1450 Collegeway
Worthington, Minnesota 56187
Phone 507 372-2107

91

MINNESOTA'S 'GREAT PLAINS' COLLEGE

"the right place, the right thing, the right time"

A SURVEY OF COMMERCIAL, INDUSTRIAL, AND SERVICE AGENCIES
BY WORTHINGTON COMMUNITY COLLEGE

Dear Employer:

Worthington Community College seeks to provide services to as many groups as possible in southwestern Minnesota. In order to do this, we need input from local commercial, industrial, and service agencies. Won't you take a few minutes to complete this questionnaire? Our goal is to meet your needs. The results of the survey will be furnished upon request.

Thank you for your help.

Sincerely,

Frederick A. Voda
President

These questions are designed for us to get an idea of the feelings within the community about Worthington Community College (WCC) and the programs it offers or can offer.

Answer according to your level of agreement or disagreement with the following statements? Use the following choices:

1. = Strongly agree
2. = Agree with reservations
3. = Undecided
4. = Disagree with reservations
5. = Strongly disagree

For instance, place 1 in the space if you strongly agree with the statement, 2 if you agree with reservation, and so forth.

1. ___ WCC faculty are concerned about students.
2. ___ WCC offers a wide variety of courses.
3. ___ WCC offers courses which appeal to me.
4. ___ WCC brings undesirables into the community.
5. ___ WCC has excellent physical facilities.
6. ___ If someone wants to go to college, he or she should go right to a university, not to WCC.
7. ___ WCC should invite actors and actresses from the Guthrie Theater, even if there is a cost, to perform for its students or for the community.
8. ___ WCC provides interesting educational programs for adults.
9. ___ WCC's faculty do not care about the college.
10. ___ WCC is only for kids.
11. ___ WCC hasn't made an effort to provide classes at convenient times for those employed.
12. ___ WCC is a good place to begin a college education.
13. ___ WCC has a good library.
14. ___ WCC faculty participate in community matters.
15. ___ WCC enriches the cultural life of southwestern Minnesota.
16. ___ WCC cares about the adults in the community.
17. ___ WCC is just another high school.
18. ___ WCC has a well-trained faculty.
19. ___ WCC is less costly than other colleges.
20. ___ WCC does not have a good reputation as a place for

(Please turn page)

students planning to transfer.

For each of the offerings listed below, indicate whether or not you would like to see it considered, first for your self (Column 1) and then for employees working in your firm (Column 2).

OFFERINGS	FOR SELF			FOR EMPLOYEES		
	Yes	No	Unde- cided	Yes	No	Unde- cided
1. Plant safety						
2. Building solar units						
3. Key punching						
4. Public speaking						
5. Supervisory/ Employee relations						
6. High school equiva- lency courses						
7. Basic reading						
8. Basic writing						
9. Basic mathematics						
10. Speed reading						
11. Physical fitness						
12. Stenography						
13. Receptionist skills						
14. Health care						
15. Employee motivation						
16. Minority relations						
17. Business ethics						
18. Interviewing						
19. Mass communications						
20. Consumer education						
21. Business forms						
22. Group dynamics						
23. Leadership train- ing						
24. Selling skills						

(Please turn page)

OFFERINGS	FOR SELF			FOR EMPLOYEES		
	Yes	No	Unde- cided	Yes	No	Unde- cided
25. Blueprint reading						
26. Industrial safety						
27. Dictaphone						
28. Welding						
29. Drafting						
30. OSHA regulations						
31. Energy conserva- tion						
32. Computer programs						
33. Labor relations						
34. Negotiating skills						
35. Investment skills						
36. Office management						
37. Management for efficiency						
38. English as a sec- ond language						
39. Electronics						
40. Chemical technology						
41. Retirement planning						
42. Advertising						
43. Landscaping for energy						
44. Theory of private enterprise						
45. Inventory						
46. Feeds and seeds						
47. Business law						
48. Agricultural chemicals						
49. Hydraulics						
50. Diesels						
51. Electricity/Wiring						

(Please turn page)

OFFERINGS

FOR SELF

FOR EMPLOYEES

	Yes	No	Unde- cided		Yes	No	Unde- cided
52. Others (Please list)							
53. Others							
54. Others							

Please respond to the following:

1. How many employees are in your firm?
 - a. ___ 1-10
 - b. ___ 11-50
 - c. ___ 51-100
 - d. ___ Over 100
2. How would you classify your place of employment?
 - a. ___ commercial (wholesale or retail)
 - b. ___ industry
 - c. ___ service
 - d. ___ other - please explain _____
3. What is the best location for classes?
 - a. ___ on Worthington Community College campus
 - b. ___ off-campus, probably at a business location
 - c. ___ other - please list _____
4. Who should teach these classes?
 - a. ___ a Worthington Community College instructor
 - b. ___ a member of the business community
 - c. ___ other - please list _____
5. Should these classes be offered for:
 - a. ___ credit
 - b. ___ non-credit
 - c. ___ both credit and non-credit
6. What format should be used:
 - a. ___ 10 to 12 week period (probably one or two hour periods)
 - b. ___ 4 to 6 week period (probably one or two hour periods)

(Please turn page)

- c. 1 or 2 days (probably six to eight hour periods)
d. other - please explain

Please respond to the following questions about this questionnaire.

1. Are the directions for the questionnaire clearly stated?
2. Are the questions clearly stated?
3. Do you understand the purpose of the questionnaire?
4. Please feel free to add comments about this questionnaire.

APPENDIX C

RESULTS AND DISCUSSION OF PILOT STUDY

RESULTS OF PILOT STUDY

An available sample of forty businesses was selected for the pilot study. All of the industries in the four towns used in the study were drawn for the sample; the balance of the subjects was divided equally between commercial and service agencies. Twenty-eight, or 70.0 percent, responded; twenty-six of the twenty-eight had employees, and two did not.

From the results of the attitude section, a factor analysis using the Varimax Rotation was computed. No clear-cut dimensions of attitude were noted.

On the Likert scale, 1.00 was "strongly agree," or the most positive attitude score possible, and 5.00 was "strongly disagree," or the most negative attitude score possible. The mean score of the attitude towards Worthington Community College from the twenty-eight respondents in the pilot study was 1.97.

Table 19 shows the rank order of the top ten offerings selected by employers for themselves and the corresponding rank of the same offerings for their employees. The pilot study listed fifty-one offerings.

Table 19
 Frequency Distribution and Rank Order of Offerings
 for Self (Employer) and for Employees
 (Pilot Study)

Offering	Self (N = 28)			Employees (N = 26)		
	Rank	#	%	Rank	#	%
Energy Conservation	1.5	23	82.1	1.5	22	84.6
Management for Efficiency	1.5	23	82.1	6.5	18	69.2
Employee Motivation	3	22	78.6	1.5	22	84.6
Supervisory/Employee Relations	4.5	21	75.0	3.5	19	73.1
Business Ethics	4.5	21	75.0	3.5	19	73.1
Leadership Training	6.5	20	71.4	3.5	19	73.1
Building Solar Units	6.5	20	71.4	8	17	65.4
Investment Skills	9	19	67.9	31.5	10	38.5
Retirement Planning	9	19	67.9	11.5	15	57.7
Labor Relations	9	19	67.9	11.5	15	57.7

Another aspect of the pilot study was an evaluation of it by the respondents. Four questions were added to the instrument (see final page of Appendix B). Twenty-five of the twenty-eight subjects chose to respond to these questions. To the first and second questions, Are the directions for the questionnaire clearly stated? and Are the questions clearly stated?, all twenty-five respondents answered "yes." To the third questions, Do you understand the purpose of the questionnaire?, twenty-three said "yes." The two who responded "no" did not make any suggestions about clarifying the purpose. Five of the respondents added comments when asked to in question four and these responses are as follows: (1) "no contact or knowledge," (2) "cannot make competent judgments," (3) "don't know lot about it or its services," (4) "move to 4-year program," and (5) "good job of informing high school students of programs."

DISCUSSION OF PILOT STUDY

Subjects in the sampling frame for the final study were members of the seven chambers of commerce in Worthington Community College's service area. Because of possible duplications in the pilot study, it was decided to use businesses in four towns in the service area which do not have chambers of commerce. For convenience and less expense, three nearby towns--Round Lake, Fulda, and Adrian--were selected along with Currie.

Of considerable importance to this study was the assessment of particular dimensions of attitude, namely academic quality, community contributions, and class offerings. The type of attitude statements used for this study modeled that used in an instrument developed by Hatley and Croskey (1978) called the Measure of Attitude Toward Public Education (MATE). The Varimax Rotation was used to determine factors in MATE and in this pilot study. From the MATE instrument, attitudinal dimensions were distinct; in this pilot study, they were not.

One reason for this difference may be the number of respondents and attitude statements used in both studies. The

The pilot study for MATE involved 115 respondents, and a re-test was given to 1,030 individuals. In contrast the pilot study for Worthington Community College involved only twenty-eight respondents. With using research assistants making face-to-face contacts with individuals, the numbers used for MATE were simply not feasible for the community college study. MATE included thirty-one attitudinal items, and the Worthington Community College study only twenty. One recommendation to Worthington Community College or any other rural community college doing an attitudinal study is that other kinds of attitudinal studies be conducted where large numbers are not available or that the numbers essential for a factor analysis using a Varimax Rotation be clearly defined.

Another difference in the two studies might be in the number of three, or "undecided" responses. Respondents in the pilot study answered 24.8 percent of the attitudinal statements with a three response. (This percentage is compared to that in the final study where as many as 69.4 percent of the respondents in one city gave an "undecided" response as shown on Table 8.) With this many items marked "three," all items are similar in dimension.

The mean response, 1.97, from all respondents in the pilot study was a positive response. This is near 2.00, or "agree with reservation" on the Likert scale used in this study.

For those program offerings to be considered, employers

selected primarily those related to the field of business. This seems likely when considering that the survey was of business people. Management for Efficiency, Employee Motivation, Supervisory/Employee Relations, Business Ethics, and Leadership Training were marked by a high percentage (71 percent or more) from the respondents. Investment Skills and Labor Relations, other offerings related to business, were included in the top ten requests. Employers did rank Investment Skills at 31.5, much lower as an offering for employees than they did for themselves. Others receiving a high percentage were Energy Conservation and Building Solar Units.

The procedure used in administering the survey was carefully examined to determine if changes should be made when administering the final study. Each research assistant was asked to evaluate the procedure, and they suggested no changes. Because 70 percent, which was obtained in the pilot study, was the minimum number wanted on the final study, it was decided to make a more concerted effort to contact respondents and to encourage the completion of the instrument.

APPENDIX D

LETTER MAILED TO RESPONDENTS IN
PILOT STUDY



WORTHINGTON COMMUNITY COLLEGE

1450 Collegeway
Worthington, Minnesota 56187
Phone 507 372-2107

106

MINNESOTA'S 'GREAT PLAINS' COLLEGE

"the right place, the right thing, the right time"

February 12, 1980

Dear

Worthington Community College, under my direction, will be conducting a survey of area business people. This study is part of the effort by the college to begin to serve as many in the college's service area as possible.

The first phase in this study is being done in order to evaluate the questionnaire used in the survey. The questionnaire includes statements about attitudes, program and class offerings, some background questions about the clarity of the questionnaire itself. No identifying information about either the individual or the business is required.

A day or two after you receive this letter, you will receive a telephone call from a research assistant who will arrange for a time to deliver the questionnaire to you. Completion of it should take no more than fifteen minutes. The research assistant will also return to collect it.

Your completing this questionnaire will be most helpful to Worthington Community College as it attempts to serve you in the ways you want. Thank you for your help.

If you have any questions, please feel free to call me.

Sincerely,

Charles Moore
Instructor

APPENDIX E

LETTER MAILED TO RESPONDENTS
IN FINAL STUDY



WORTHINGTON COMMUNITY COLLEGE

1450 Collegeway
Worthington, Minnesota 56187
Phone 507 372-2107

108

MINNESOTA'S 'GREAT PLAINS' COLLEGE

"the right place, the right thing, the right time"

March 17, 1980

Dear

Worthington Community College, under the direction of Mr. Charles Moore, is conducting a survey of southwestern Minnesota business people. This study is part of the effort by the college to begin to serve as many in the college's target area as possible. Your local Chamber of Commerce supports this endeavor and will be provided the results of the survey. You are welcome to a copy of these.

Your completion of the questionnaire for this survey will be most helpful to the college as it attempts to provide community services in ways you suggest. The questionnaire includes statements about attitude, program and class offerings, and some background questions about the size and type of your business or agency. No identifying information about either the individual or the business is required.

Within a week after you receive this letter, you will receive a telephone call from a research assistant who will arrange for a time to deliver the questionnaire to you. Completion of it should take no more than fifteen minutes. The assistant will also return to collect it.

If you have any questions, please feel free to call Mr. Moore.

Sincerely,

Frederick A. Voda, Ed. D.
President

APPENDIX F

LETTER MAILED TO THOSE
NOT CONTACTED



WORTHINGTON COMMUNITY COLLEGE

1450 Collegeway
Worthington, Minnesota 56187
Phone 507 372-2107

110

MINNESOTA'S 'GREAT PLAINS' COLLEGE

"the right place, the right thing, the right time"

April 23, 1980

Dear

We have been unable to contact you via the telephone about the survey of business people that Worthington Community College is conducting. In order to encourage your participation in this survey, I have taken the liberty of enclosing a form and a self-addressed, stamped envelope for your convenience in completing the questionnaire.

My deadline for collecting the data is almost here, and I would like to be able to include your input into this study.

We at Worthington Community College appreciate your participation very much and hope that this study yields a better program to the community.

Sincerely,

Charles Moore
Instructor

APPENDIX G

LETTER MAILED TO RESPONDENTS
CONTACTED BUT NOT RESPONDING



WORTHINGTON COMMUNITY COLLEGE

1450 Collegeway
Worthington, Minnesota 56187
Phone 507 372-2107

112

MINNESOTA'S 'GREAT PLAINS' COLLEGE

"the right place, the right thing, the right time"

April 23, 1980

Dear

We have not yet received your completed survey form on the survey of area business people being conducted by Worthington Community College. During the hectic workday these forms often get mislaid so I have taken the liberty of enclosing a new form and a self-addressed, stamped envelope.

My deadline for collecting the data is almost here, and I would like to be able to include your input into this study.

We at Worthington Community College appreciate your participation very much and hope that this study yields a better program to the community.

Sincerely,

Charles Moore

ERIC Clearinghouse for Junior Colleges
96 Powell Library Building
University of California
Los Angeles, California 90024